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THE BUSINESSMAN-ARCHITECT

By S. J. T. STRAUS

PART II—METHODS OF FINANCING

IT IS vitally important that the financing of a building operation be complete in all its details at the outset. A clean-cut, thoroughly worked-out plan of financing will not only eliminate delays and enable the builder to obtain lowest possible bids from contractors, but will gage to a large extent the future success of the building. Of course, the architect is as vitally interested in this subject as the owner, for upon the progressive architect's shoulders usually rests a responsibility in connection with financing arrangements.

Present-day methods of financing are the results of an evolution covering a period of about twenty years. A quarter-century ago the modern skyscraper had not as yet made its appearance. But the need for building upward instead of spreading out was present. Cities were growing rapidly, and coincident with the growth, ground values were greatly enhanced. It was therefore recognized, in order to be profitable, buildings should be higher and larger. Two obstacles were, however, present. The first lay in the prevailing method of construction—increasing the thickness of the walls of a building as its height increased. This necessitated enormous walls of brick or stone, with the consequent loss of light and space. This was especially true on the lower floors, where room was most valuable. Consequently, the height of buildings was limited until the advent of the steel skeleton method of construction. Every architect is, of course, familiar with the development of this idea—how it solved the problem of higher buildings, as far as construction was concerned. The second obstacle was the difficulty of financing large building operations. The only course open, outside of financing the building entirely with one's own funds, was to seek a straight mortgage from an insurance company, bank or private individual. Straight mortgage financing, up to a certain point, was quite satisfactory, but when the loan required rose to large figures it was found practically impossible to invariably locate an investor who was capable or willing to tie up such a large portion of his capital in one proposition. Sometimes the builder was unable to secure financial co-operation to any extent, when money was tight or financial institutions had loaned out their allotment of capital for the year. As a consequence, the erection of buildings was frequently restricted or abandoned and city development retarded.

The idea of dividing a mortgage into fractional portions and disposing of these allotments in the form of bonds was originated by Frederick the Great in Silesia, Prussia, 1769. The idea proved so successful that it spread from Germany to other countries, and at the present time the straight mortgage is practically unknown in every other civilized country but the United States. It is a peculiar fact that the United States up to some twenty-odd years ago had not seen fit to use the plan to any extent. However, the difficulties in financing that developed about

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that time brought home its advantages forcibly. It was recognized how a mortgage thus divided, no matter how large, could be easily absorbed by the general public and more extensive building operations financed.

A mortgage was therefore made on a recently completed office building located in Chicago and bonds in denominations of $100, $500 and $1,000, amounting to the total, were issued and secured by a trust deed. They differed from the European plan in that the bonds were not debenture obligations but were directly secured by first mortgages. The opportunity to participate in a mortgage of this character, formerly available only to a few institutions and individuals, and offering unquestioned security, proved attractive to the general investor and he took advantage of it. This was the beginning of the first mortgage serial bond issue in the United States. It has gradually developed into what is now one of the most extensively utilized methods for financing buildings. Originating to meet an urgent necessity, and surviving and growing because of the manner in which the need was met, this method of financing owes its present-day popularity not only to the ease with which large operations are financed by its aid, but also to the extent to which it has simplified methods of financing that have sprung up during the last quarter-century of American city building.

Take as an example what was once the difficulty of financing a building under construction. The problem of bridging over the period of construction presented increasing difficulties as the buildings became larger. Banks, insurance companies and other investors frequently required that a building be "under roof" or completed before making a loan. Consequently, contractors and supply men were usually required to carry notes for a certain percentage of their contract. Terms of such obligations were from one or two months to, in some cases, several years. It is easy to see that firms accepting such deferred payments of the money due them are either assured of a larger profit included in their figures, or have some means of discounting such obligations. This method of utilizing contractors, materialmen and the like to make a project possible was very costly, and charges for carrying the deferred payments seriously reduce the profits of the owner.

This difficulty has been met by some financial institutions who will arrange for a temporary construction loan. This is designed to carry the owner through the building period, to be replaced upon completion of the work by a permanent loan. While the temporary construction loan has helped matters to some extent, it also has certain disadvantages. For instance, if construction work is greatly delayed, it is necessary to renew the loan, which entails added expense and considerable trouble. Sometimes, when the delay is caused by labor troubles, either at the building or in the mills where material is produced, the owner experiences difficulty in avoiding complications and in renewing his short term construction loan.

The first mortgage serial bond issue seems to possess an advantage in this respect. It is essentially long term financing and in the great majority of cases it is made when construction is begun and extends over a period of from five to twelve years. It also eliminates the extra commission which it is necessary to pay in connection with temporary and permanent loans.

Banks and insurance companies, however, are beginning to make a few construction loans covering a period of years. As an example of how loans during construction are handled, let me explain the system employed with first mortgage serial bond issues. With a loan of this character, after it has been accepted by the loaning institution and papers prepared, the net proceeds are placed to the credit of the borrower and paid out as the building progresses, on owner's and architect's certificates. These payments begin after the owner has expended the cash he is, himself, furnishing, which the loaning institution will satisfy itself is sufficient, when added to the loan, to complete the building. As payments are made, waivers of liens are required. With loans on completed buildings, the money

is immediately paid over to the borrower.

The issuance of stock is sometimes employed in financing buildings. It is very seldom that the building is completely financed by a stock issue, but where the ownership is with a corporation, the funds above the amount netted by the loan are usually provided by stock.

The word "serial" represents an important feature in serial bond issues. The gradual reduction of the principal is provided for through the serial prepayment or amortized mortgage method, amortized meaning "to kill off." In easy stages, from the earnings of the property, annual payments amounting to about 5% of the principal are made, after the second year, which offers three advantages to borrowers:

1. The annual interest charge is decreased each year as the loan is reduced, the largest interest payments being made when the building is new.
2. Payments of principal do not begin until the end of the second year, giving the borrower ample time to complete the building, rent it and place it on a paying basis.
3. At the final maturity of the bonds the loan can be renewed more readily, because of the reduced principal sum outstanding.

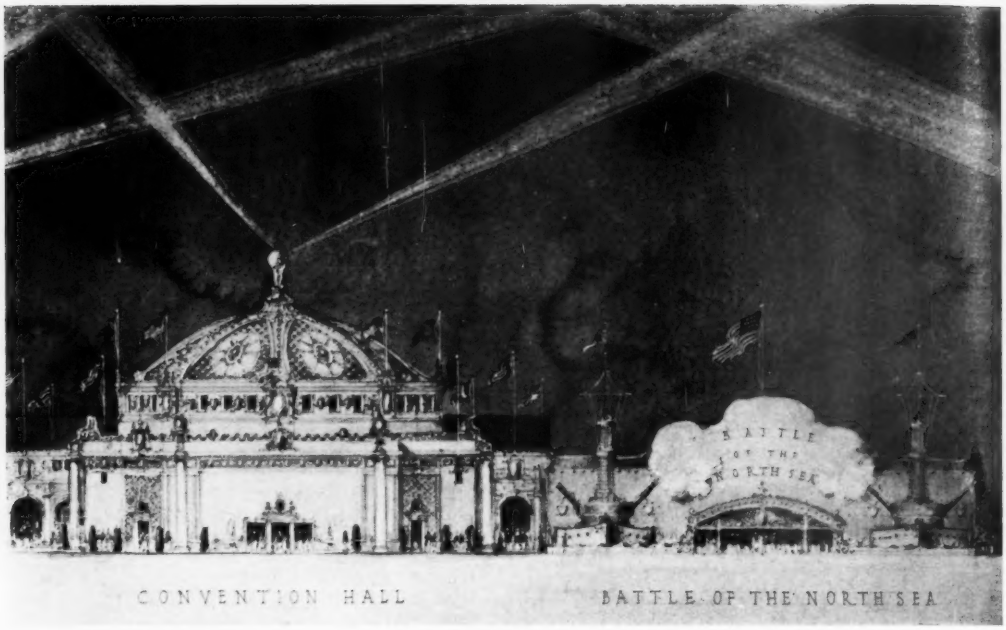
In connection with a construction loan the owner will often find that the loaning institution has anticipated and provided for many contingencies which he did not foresee at the beginning. He will find, in many cases, that trouble has been averted. He is protected by the papers prepared by the banker's Legal Department, which specializes and keeps in constant touch with our ever-changing real property laws. Also an exceptionally accurate and efficient system will account for every dollar going into the building, so that completion will not be delayed by lack of funds. He will find, as he goes along, that the loaning institution has greatly assisted in making his proposition successful.

The Obelisk as a Memorial

Prof. S. D. Adshead, in an address in London on "Monumental Memorials and Town Planning," says in regard to the Egyptian obelisks: "To the irresolute modern these great monoliths in syenite granite are truly records of the will-power and endurance of their makers, but since the time of the Egyptian dynasties no nation has felt equal to incurring the necessary energy and expense required to quarry stones of such gigantic proportions. Either, as at Washington, where the obelisk commemorating the independence of America, and is 660 feet high, it is built of small stones, or else a more complicated treatment has been adopted in place of the simple idea. When erected with small stones it is undoubtedly a mistake to give it the accepted proportions of the monolith; it should be shorter and more truncated in form. That erected in Phoenix Park, Dublin, and known as the Wellington Obelisk, is perhaps the best of its kind."

Walks Along Curb Increase Parking Space

In the thickly settled apartment-house districts of Chicago a narrow sidewalk is laid along the curb at the outside of a wide parking, with crosswalks to the main sidewalk at each entrance. The automobile driven by women is responsible for this arrangement. The car can arrive at any place along the curb, and neither are my lady's slippers soiled nor is American chivalry assailed for lack of a Sir Walter. —*Engineering News-Record.*



THE BRONX INTERNATIONAL EXPOSITION

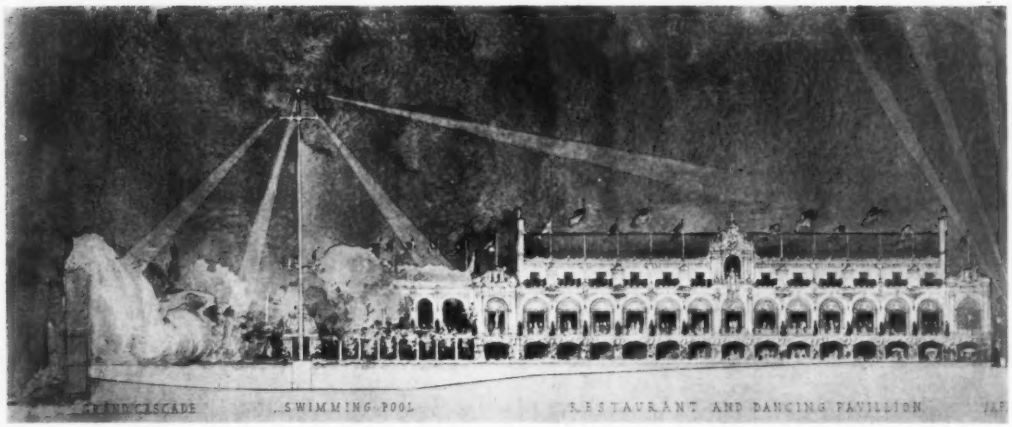
KENNETH M. MURCHISON, *Architect*

Illustrated by Sketches by the Architect

THE Bronx International Exposition of Science, Arts and Industries will be the first permanent exposition in the City of New York and will commemorate the three hundredth anniversary of the settlement of the Borough of the Bronx. It will open its doors to the public on May 30, 1918, and its many amusement features will undoubtedly attract a large public following.

The property, consisting of about twenty-five acres, is situated at 177th Street and the Bronx River, just south of the Zoological Gardens, and is served by the subway, many surface lines and two railroads. The N. Y., N. H. & H. Railroad has its station at the grounds and, through the New York Connecting Railroad leading to the great Pennsylvania Terminal at Thirty-second Street, taps the entire south, east and west.

The general style of architecture will be Spanish Colonial, a period which admits of interesting color schemes and of a stucco treatment throughout. As this is to be a twenty years' exposition, staff will not be used, but all ornament and sculpture will be cast in white cement. Including all concessions, there will be over a hundred buildings on the ground, ranging from ten feet in length to some four hundred feet. Eleven of the

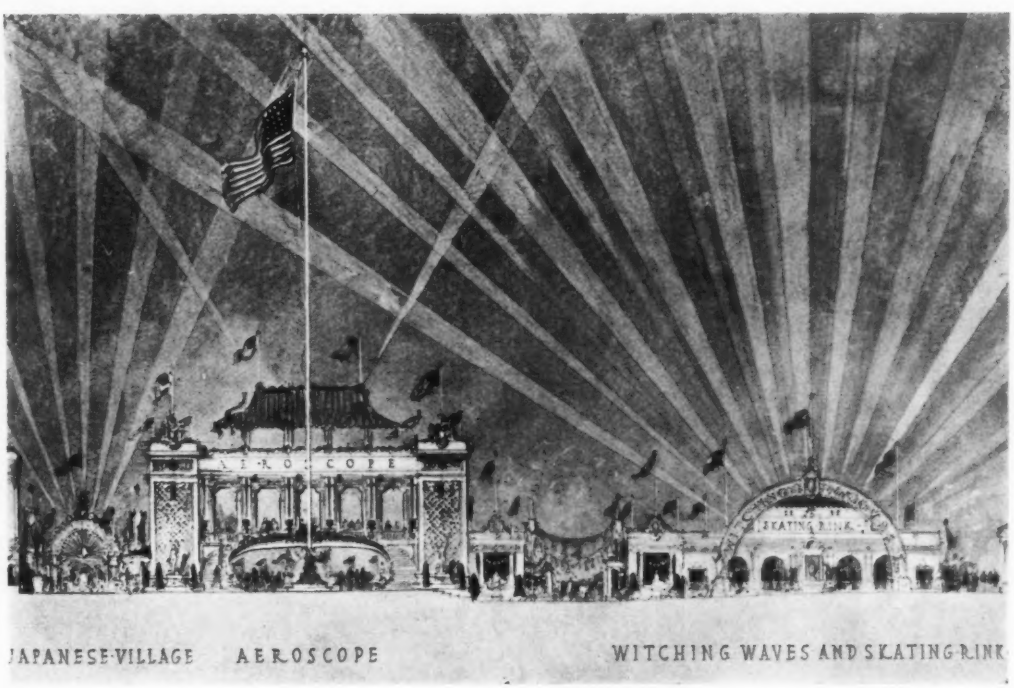


buildings will be used for exhibit purposes, the rest being concessions, theaters, restaurants, music halls and the largest concrete swimming pool in the world, with bath house facilities for about five thousand people. The sand beach will be 75 by 300 feet and the large restaurant at one end has provisions for parties in bathing costume.

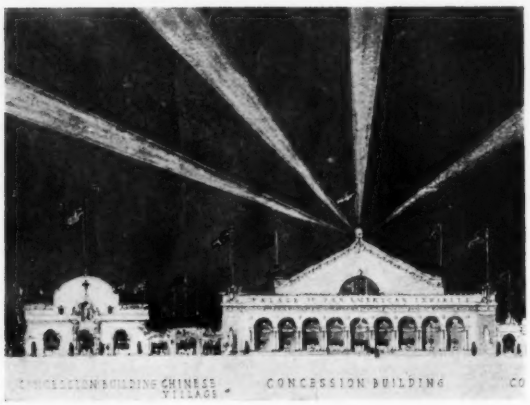
Some of the most popular concessions at the Panama-Pacific Exposition at San Francisco will be reproduced here, among them being an aeroscope, whose car ascends to a height of 275 feet, giving its passengers all the sensations of an aeroplane ride.

The grounds are laid out to accommodate 150,000 visitors in any one day.

An effort will be made by the architect to give the young sculptors of New York an opportunity to have their work seen by the public and to that end a series of competitions will be held for some of the principal sculpture work under the au-

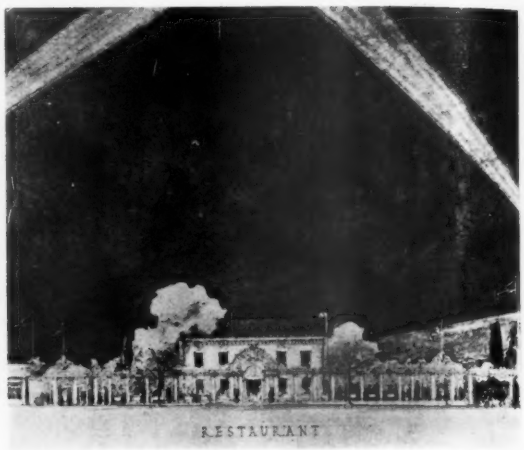


spices of the Beaux-Arts Institute of Design. The winners of these competitions will have their work put up to size by the exposition company. The first competitions will be for the three groups



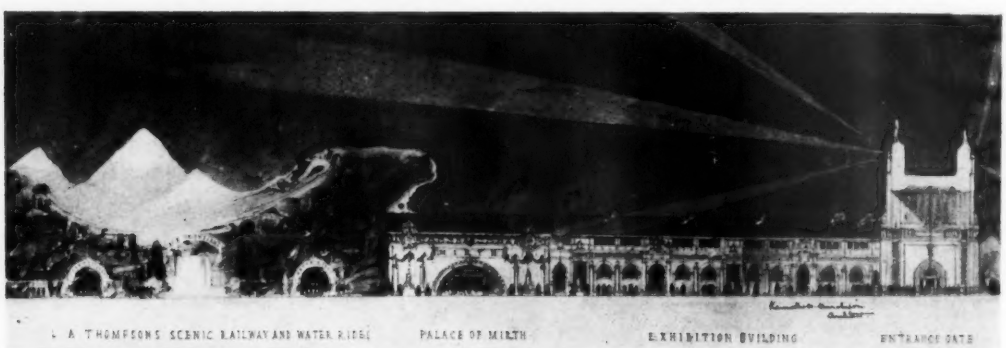
of the main entrance gate, these groups typifying Commerce, Arts and Sciences.

The figures will be about sixteen feet high. Other competitions will be held for the various groups and figures for the



embellishment of the Court of Honor, the exhibit palaces and the convention hall.

Although the exposition will not formally open until 1918, work is in progress on the grounds and the grounds will be dedicated during the coming summer with an Allied Relief and Red Cross Exposition, a feature of which will be an interesting military tournament.



LEHIGH VALLEY TERMINAL, BUFFALO, N. Y.

MR. KENNETH M. MURCHISON, *ARCHITECT*

MR. KENNETH M. MURCHISON, *ARCHITECT*

XUM

MAIN WAITING ROOM

LEHIGH VALLEY TERMINAL, BUFFALO, N. Y.

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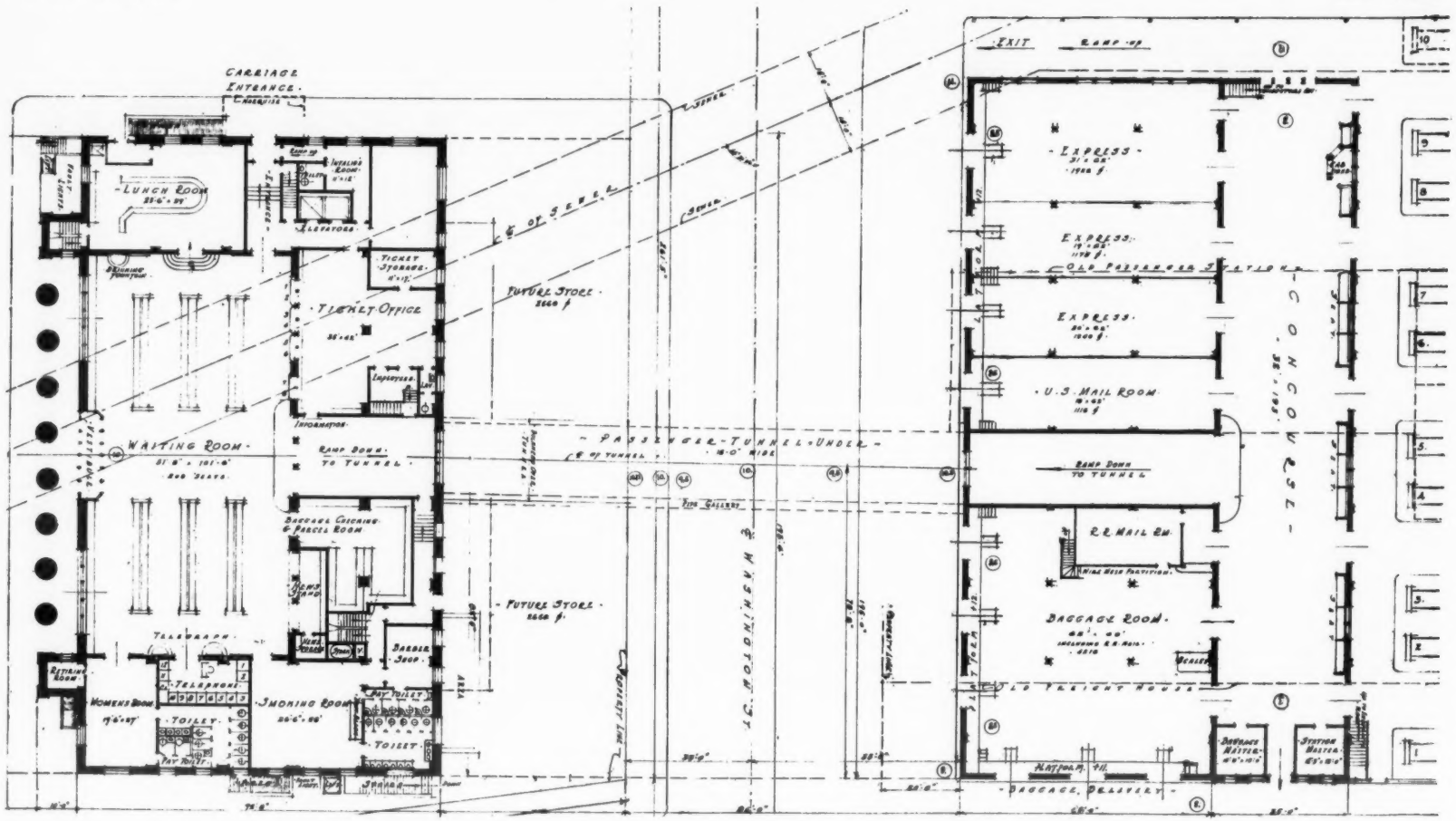

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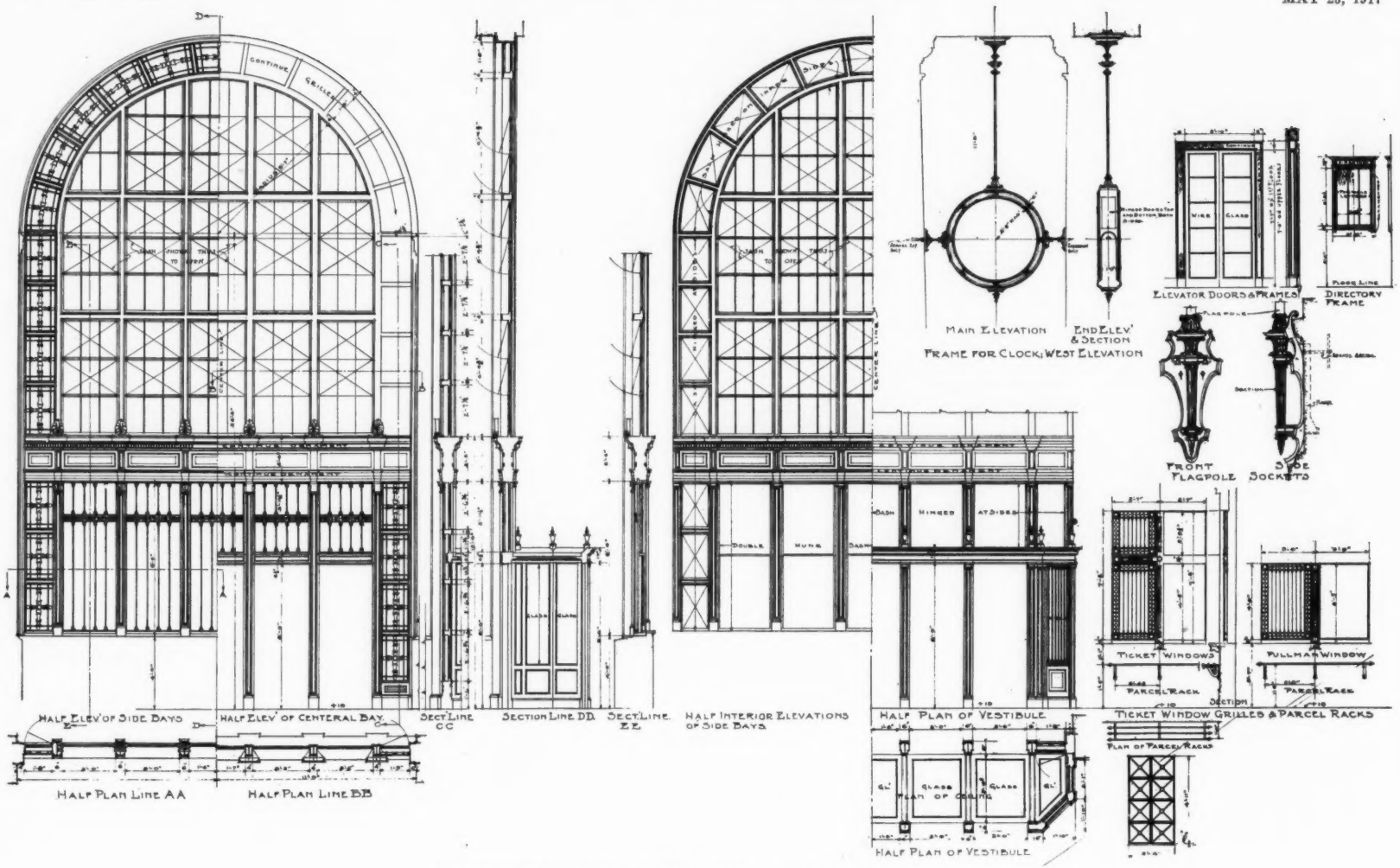

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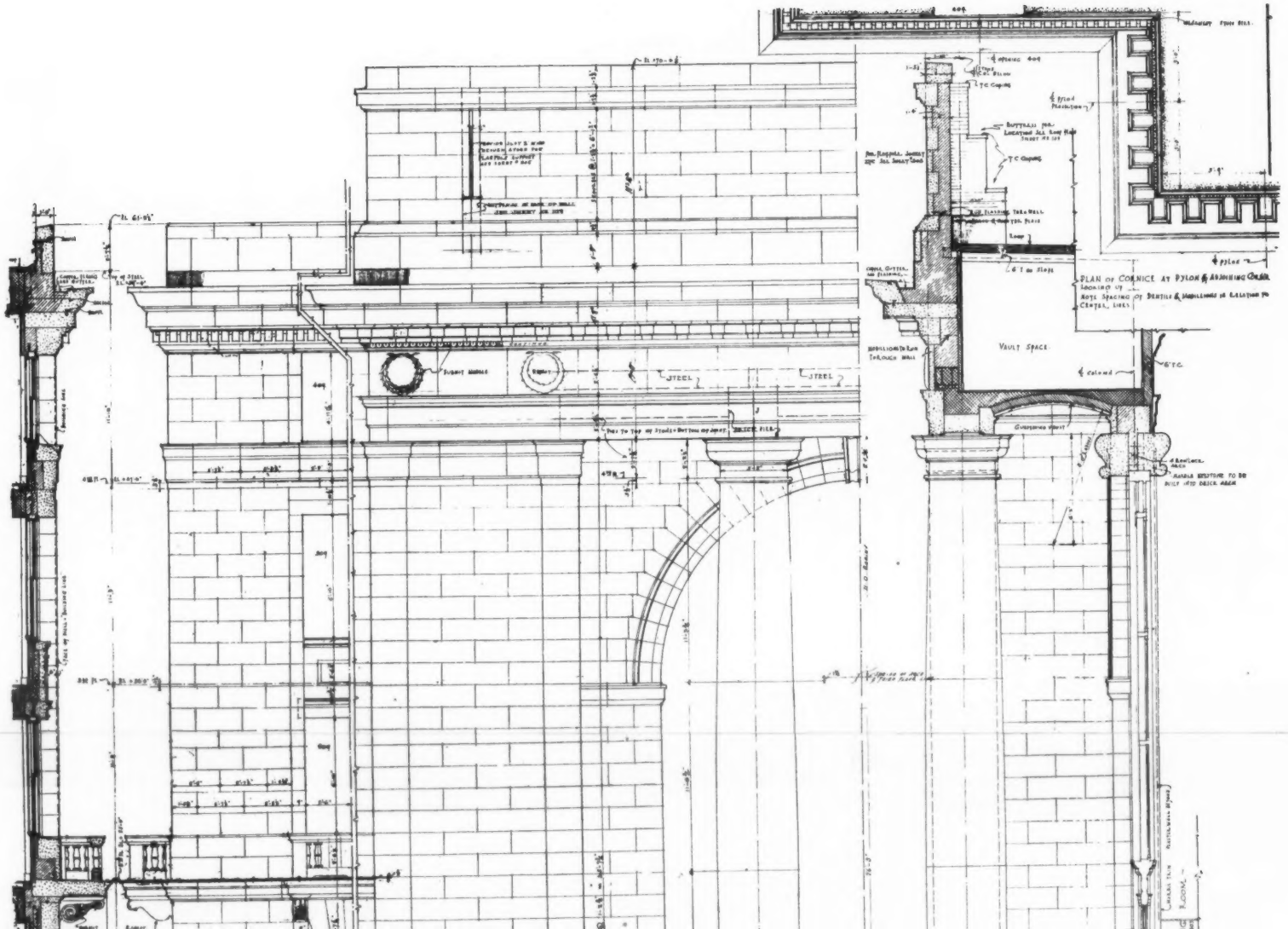
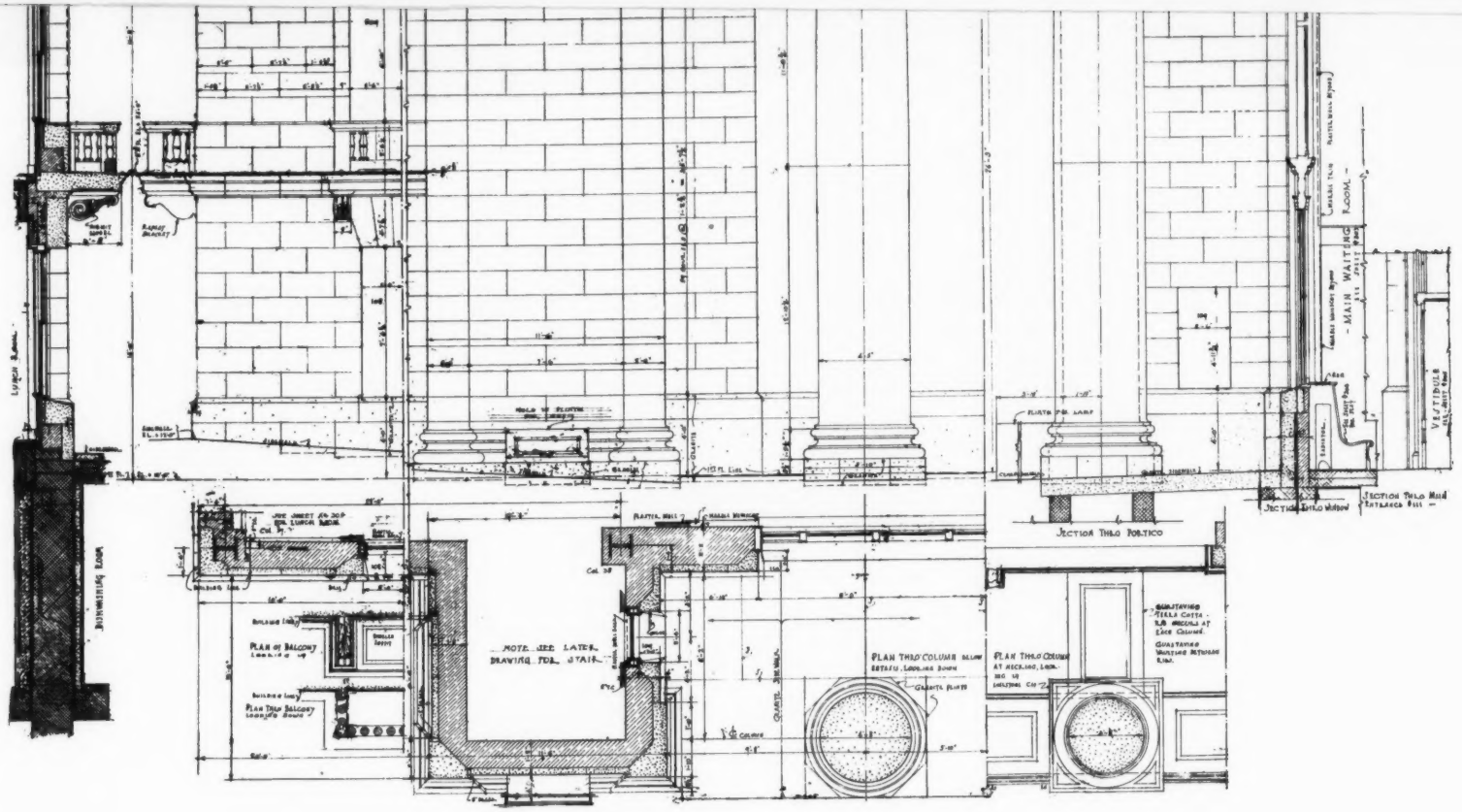

PLAN OF CORNICE AT PYLON & ADJOINING COLUMN
VAULT SPACE
JSTEEL
JSTEEL



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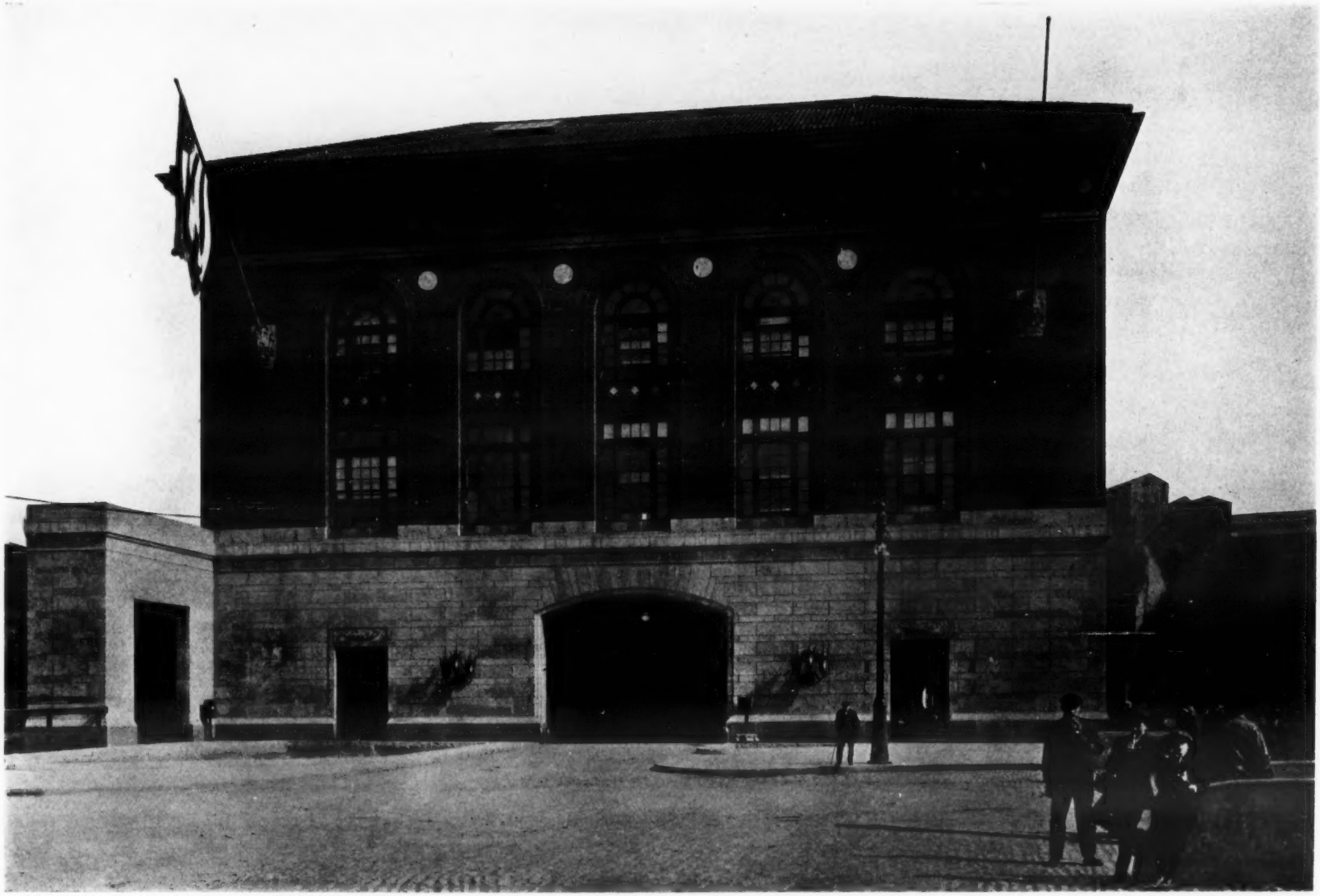

MAIN STREET FACADE

LACKAWANNA TERMINAL, BUFFALO, N. Y.

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MR. KENNETH M. MURCHISON, *ARCHITECT*

RIVER FACADE

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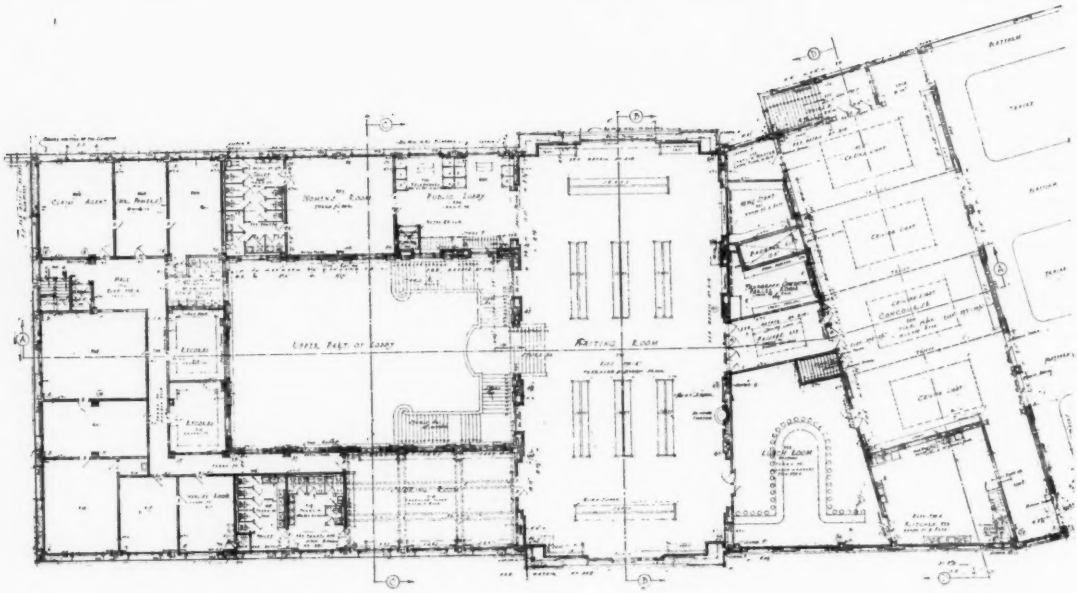

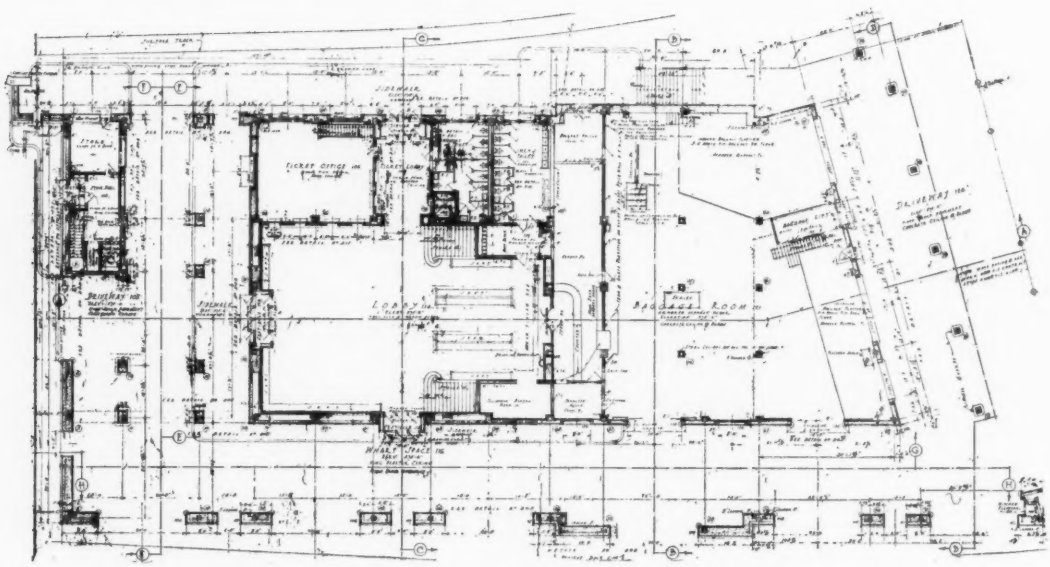

LACKAWANNA TERMINAL, BUFFALO, N. Y.

MR. KENNETH M. MURCHISON, *ARCHITECT*

THE AMERICAN ARCHITECT MAY 23, 1917

MAIN WAITING ROOM

LACKAWANNA TERMINAL, BUFFALO, N. Y.

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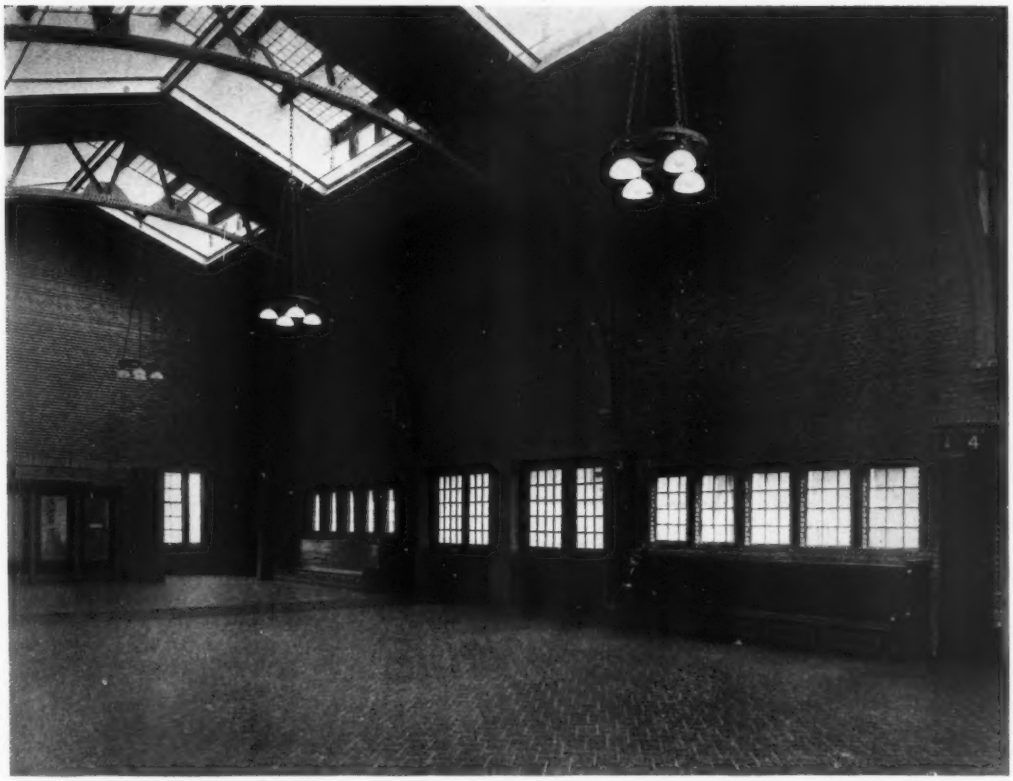

CONCOURSE

LOBBY

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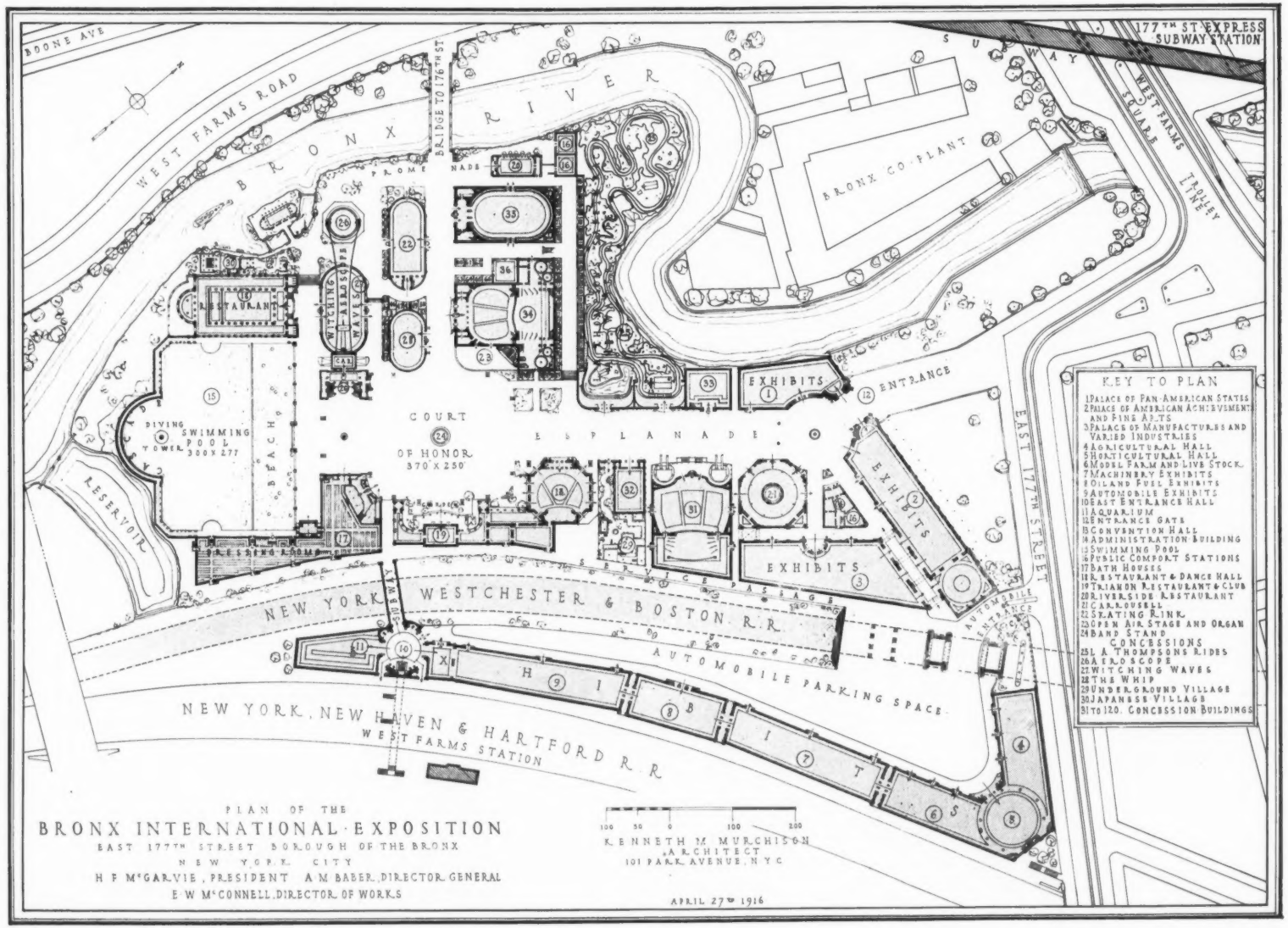
BOONE AVE
WEST FARMS ROAD
BRONX
RIVER
BRIDGE TO 176TH ST
177TH ST EXPRESS SUBWAY STATION
SUBWAY
WEST FARMS TROLLEY LINE
BRONX CO-PLANT
PROMENADE
RESTAURANT
WITCHING WAVES
THE WHIP
EXHIBITS
ENTRANCE
COURT OF HONOR 370'X250'
ESPLANADE
DIVING TOWER
SWIMMING POOL 300'X 177'
BEACH
RESERVOIR
DRESSING ROOMS
EXHIBITS
EXHIBITS
EAST 177TH STREET
SERVICE PASSAGE
NEW YORK WESTCHESTER & BOSTON R.R.
AUTOMOBILE ENTRANCE
AUTOMOBILE PARKING SPACE
HIPPODROME
NEW YORK, NEW HAVEN & HARTFORD R.R.
WEST FARMS STATION
KEY TO PLAN
1 PALACE OF PAN-AMERICAN STATES
2 PALACE OF AMERICAN ACHIEVEMENTS AND FINE ARTS
3 PALACE OF MANUFACTURES AND VARIED INDUSTRIES
4 AGRICULTURAL HALL
5 HORTICULTURAL HALL
6 MODEL FARM AND LIVE STOCK
7 MACHINERY EXHIBITS
8 OIL AND FUEL EXHIBITS
9 AUTOMOBILE EXHIBITS
10 EAST ENTRANCE HALL
11 AQUARIUM
12 ENTRANCE GATE
13 CONVENTION HALL
14 ADMINISTRATION BUILDING
15 SWIMMING POOL
16 PUBLIC COMFORT STATIONS
17 BATH HOUSES
18 RESTAURANT & DANCE HALL
19 TRIANON RESTAURANT & CLUB
20 RIVERSIDE RESTAURANT
21 CAROUSELL
22 SKATING RINK
23 OPEN AIR STAGE AND ORGAN
24 BAND STAND
CONCESSIONS
25 L. A. THOMPSONS RIDES
26 AEROSCOPE
27 WITCHING WAVES
28 THE WHIP
29 UNDERGROUND VILLAGE
30 JAPANESE VILLAGE
31 TO 120. CONCESSION BUILDINGS
PLAN OF THE
BRONX INTERNATIONAL EXPOSITION
EAST 177TH STREET BOROUGH OF THE BRONX
NEW YORK CITY
H F McGARVIE, PRESIDENT A M BABER, DIRECTOR GENERAL
E W McCONNELL, DIRECTOR OF WORKS
100 50 0 100 200
KENNETH M MURCHISON
ARCHITECT
101 PARK AVENUE, N.Y.C.
APRIL 27TH 1916

MAIN ENTRANCE

BRONX INTERNATIONAL EXPOSITION, NEW YORK

MR. KENNETH M. MURCHISON, *ARCHITECT*

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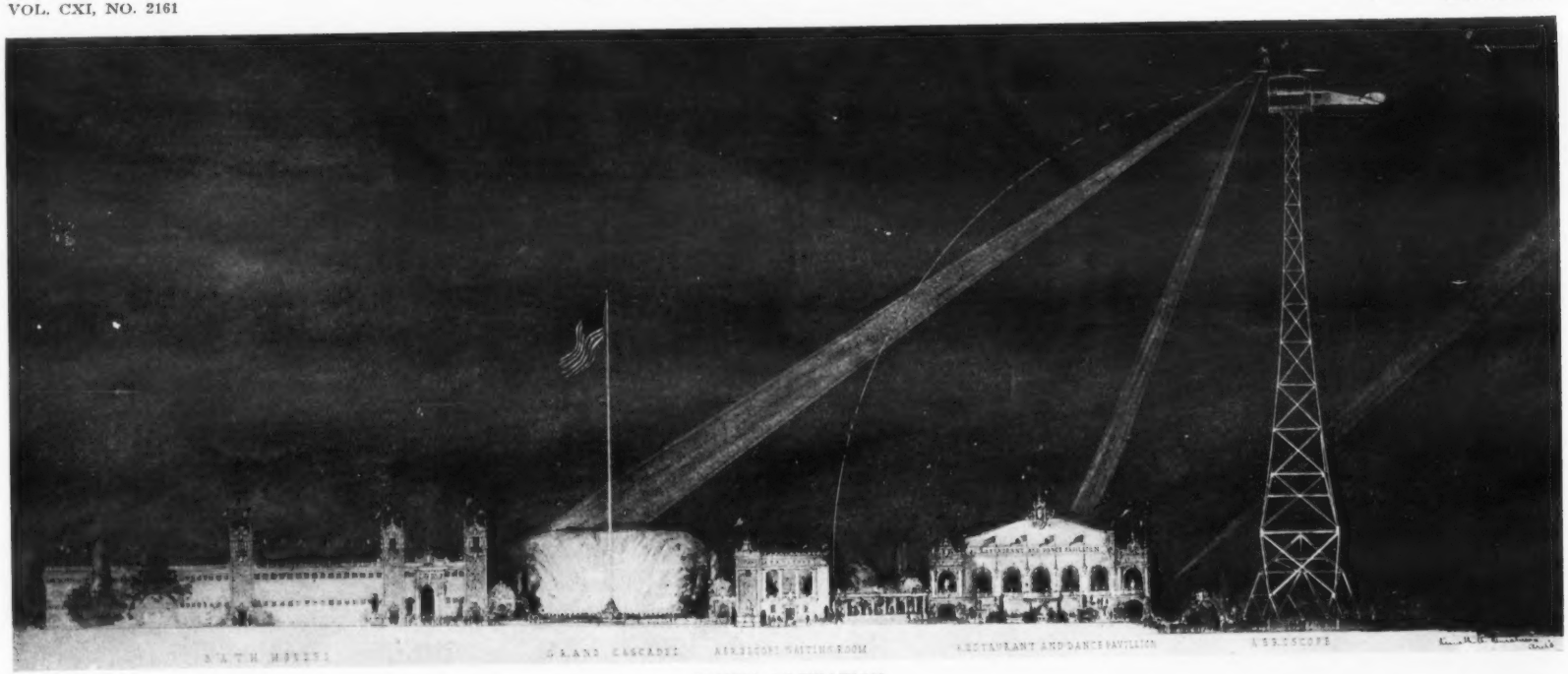
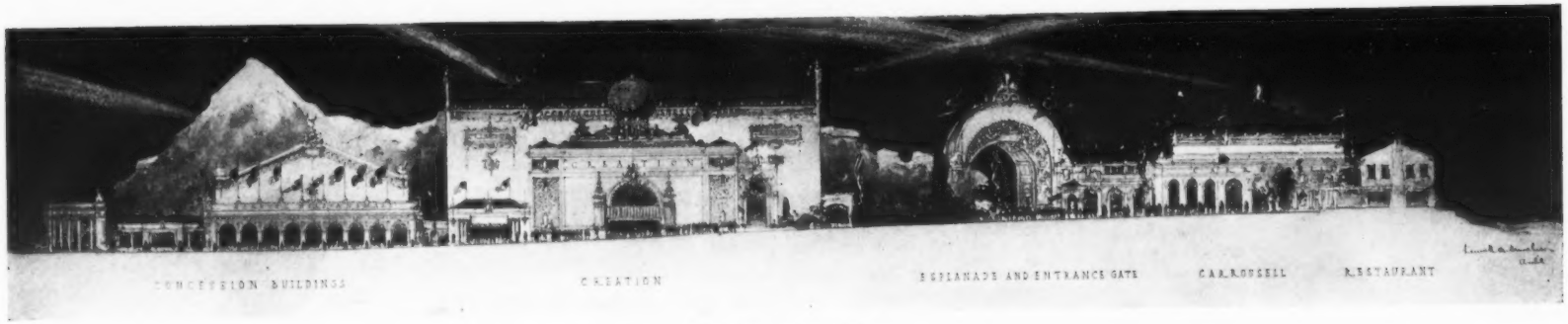


SOUTH ELEVATION

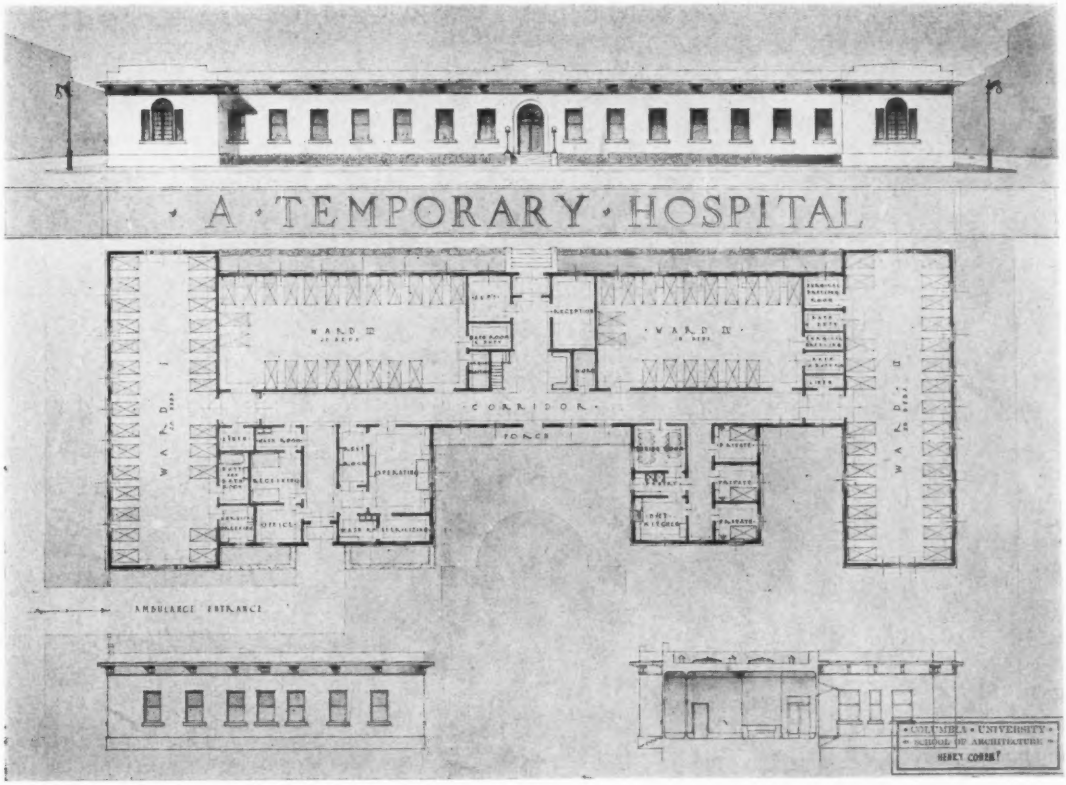


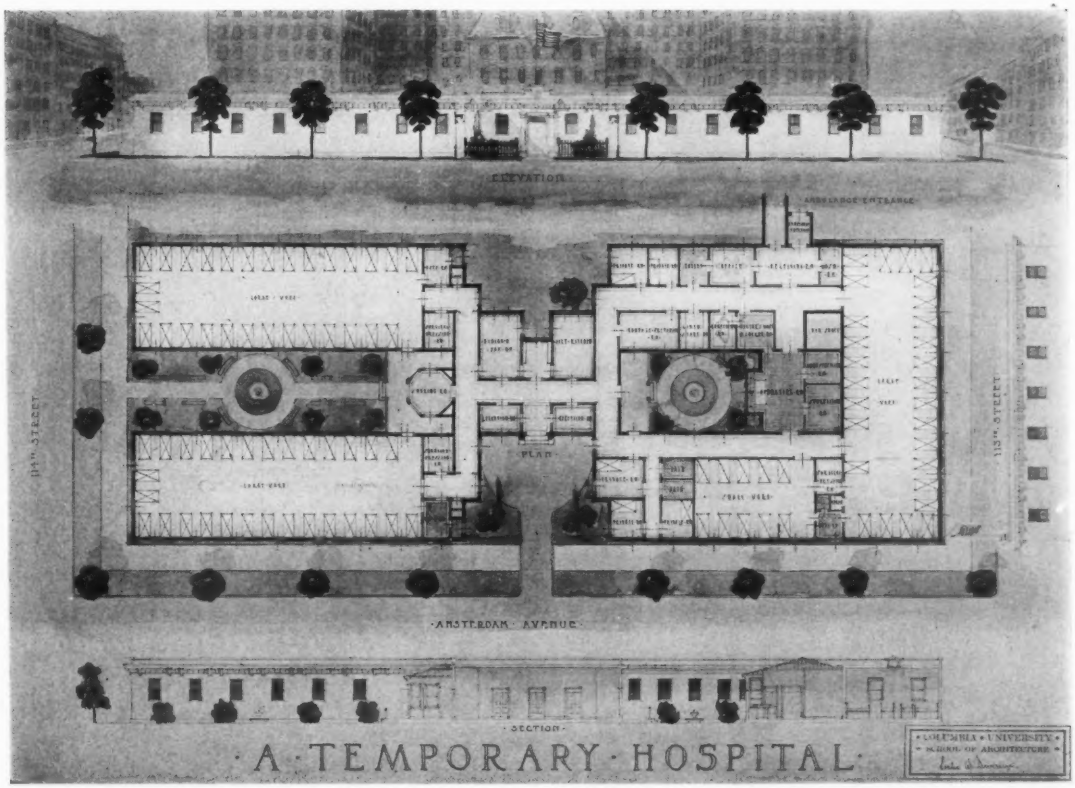
NORTH ELEVATION

ELEVATIONS ALONG EAST AND WEST AXIS LEADING TO COURT OF HONOR

BRONX INTERNATIONAL EXPOSITION, NEW YORK

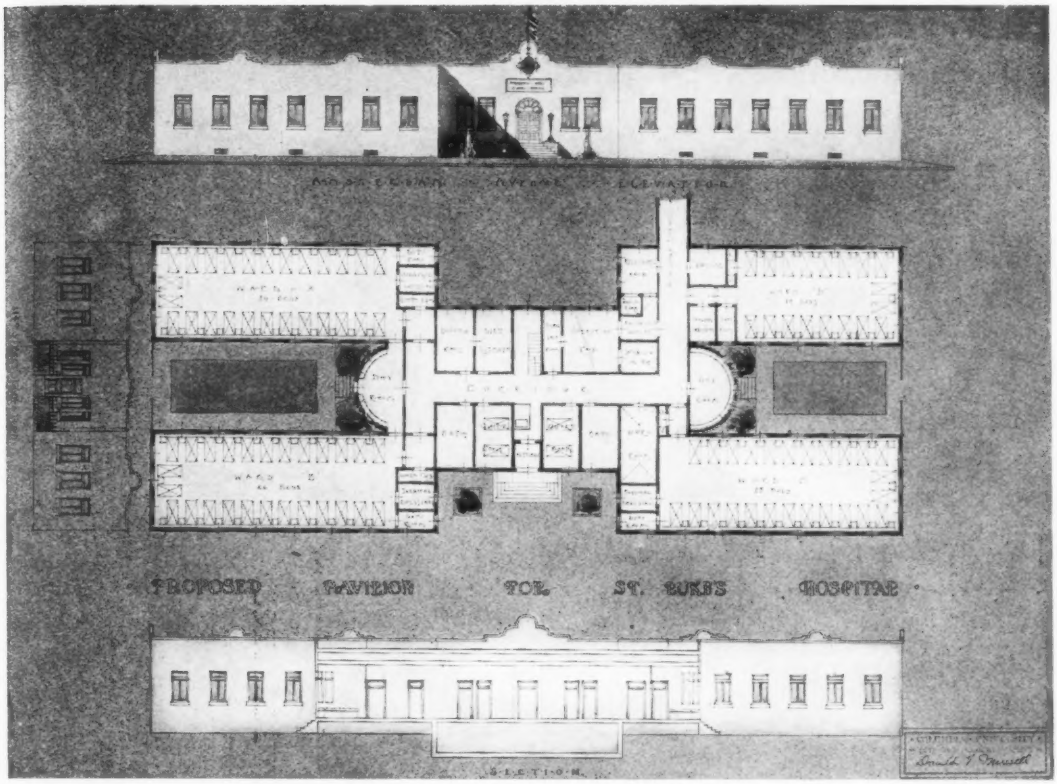
MR. KENNETH M. MURCHISON, *ARCHITECT*

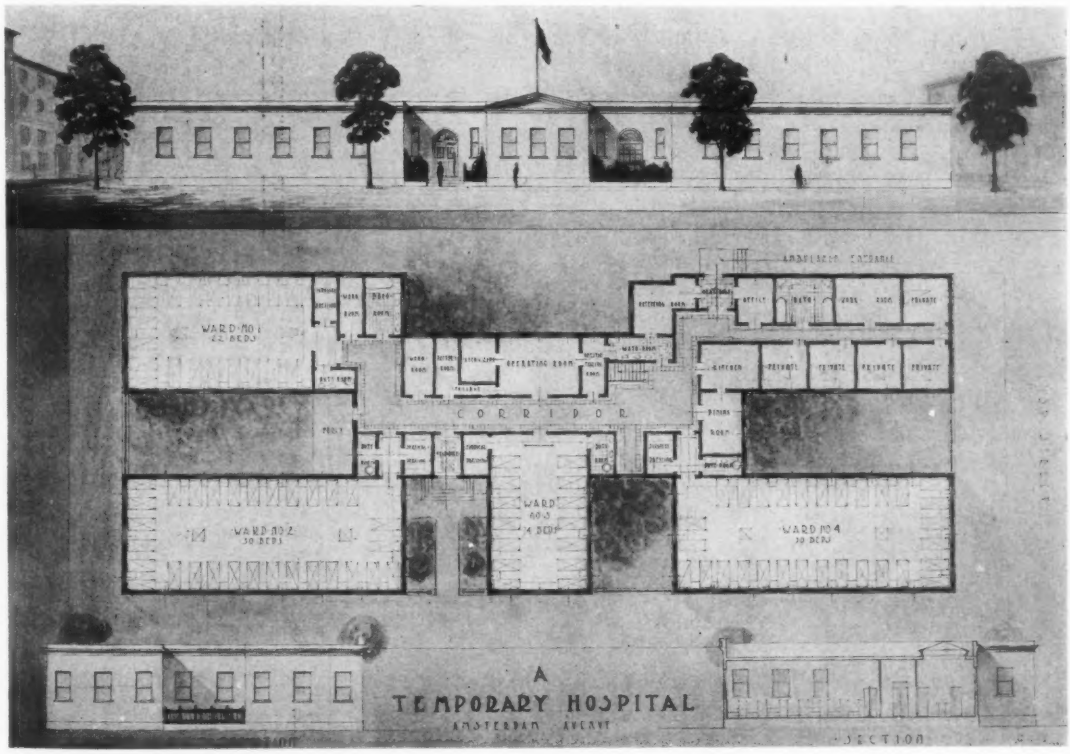




COLUMBIA UNIVERSITY, SCHOOL OF ARCHITECTURE, PROBLEMS IN DESIGN

ST. LUKE'S GOVERNMENT HOSPITAL





COLUMBIA UNIVERSITY, SCHOOL OF ARCHITECTURE, PROBLEMS IN DESIGN

ST. LUKE'S GOVERNMENT HOSPITAL

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ARCHITECTURAL SCHOOLS IN WAR TIME

THROUGHOUT the length and breadth of the land American universities have maintained in our national crisis staunch and historically dignified traditions of service to the nation. As fountain sources of knowledge and as training schools for the adaptation of variegated human ability, they have been quick to turn to national advantage their vast resources in several scores of fields; their facilities of men, minds and materials; their carefully analyzed experiences in numerous scientific branches of endeavor; their great buildings and laboratories; the intricate machinery of teaching and of educational administration. And all of this has been in addition to the efforts which these institutions have made in the strictly military field, in which, be it said, the universities have established training corps to prepare men for every arm of both army and navy service from red cross to coast patrol, from aviation to field artillery, from radio engineering to cavalry. Of the architectural schools, however, only Columbia has thus far undertaken definite professional service in its own field of instruction.

As part of the nation-wide movement for the improvement of the equipment necessary to take care of a large army in active service, St. Luke's Hospital in New York City proposed to erect upon ground adjacent to its present buildings, and hitherto reserved for additional pavilions subsequently to be erected as part of an original plan, an emergency government hospital equipped to provide for the needs of two hundred military patients, wounded or sick, sent back from the firing line to regain health and strength. It was proposed to erect a structure temporary in a sense, but of such materials as to be of use for a space of years, if necessary; in other words, and in terms of war times, a permanent building as distinguished from a base hospital.

To plan and bring into execution this building the School of Architecture at Columbia, situated but three blocks distant, was engaged as architect and the head of its department of design was definitely appointed consulting architect. The serious business of designing the building in question was undertaken in one of the school's drafting rooms, in which was established a regular office with its quota of assistants, a full personnel from chief draftsman to office boy. Volunteers from the student body have carried on the work of this office, drafting and tracing and detailing, specification writing and other routine duties; these volunteers have been relieved from a proportionate amount of their required lectures and other courses in return for such service.

The value of such an undertaking to school and students alike, from the standpoint of national service as well as from that of professional teaching, is not to be underrated. The project offered unusual instructional advantages, chiefly for the reason that it made possible a happy combination of architectural practice with architectural instruction, blending the effect of the office and the class room in a manner altogether impracticable or impossible under normal conditions. As a matter of fact, this may be considered the first instance of the establishment of a

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practical laboratory in connection with a school of architecture, in which a definite commission was undertaken.

Although the work goes on as though in an office downtown, the watchful eyes of several instructors prevent errors and promptly take advantage of each opening to inculcate principles of design and construction from the point of view of their practical application. The professor of construction revises all construction drawings and, under the tutelage of another instructor, the students themselves will superintend the building in process of actual erection.

In another place we reproduce a selected number of typical drawings, made as one week problems when the scheme was first proposed, together with the program of initial conditions.

There must be tasks similar to that found by Columbia in or near every great city containing a school of architecture. If the hospitals are to render war service —and thousands of convalescents may yet require care and treatment as a result of the portending conflict—the schools can everywhere stand ready to serve. What is more, buildings of several dozens of other kinds will likewise be required, barracks, munitions factories, canteens and many more.

The need for such buildings and for information as to their most efficient design and construction appears immediately, if it is borne in mind that even the woeful experience of Europe in The Great War has not been sufficient to cause any of our national departments to formulate typical or standardized designs and that no less than six months ago an architect of highest standing in this city who presented suggestions and drawings anent this important branch of service, based on actual experience in the employ of France, was coldly received in the national capital although his appeal went directly to high authority.

Again, the great agricultural movement—at the moment so manfully undertaken in all corners of the country, making truck gardens even of front yards in the suburbs and causing public parks to be plowed up for farming—is bound to require hundreds of buildings destined to serve farm purposes, housing and feeding farm hands, machines and implements, storing and maturing grain, and preparing it for transportation and consumption. Here also the schools may function and this applies directly to universities maintaining both a school of architecture and a school of agriculture. In all of these directions the schools can help in a definite sense and to the direct benefit of their students, who can only be the gainers and to whom recompense can justifiably be made in terms of academic credit.

The architect's professional service does not cease because of war; war should increase his responsibility, but as regularly as possible in the professional sense. Conscription or no—the nation needs his professional training, knowledge and experience. The time has come when architecture must lead the march of all the professions not regularly identified with war; the architects of the land must be solidly for service. Again, what the schools can do, may likewise be accomplished in the offices, and it must be remembered that in time of national stress all facilities and especially all organized facilities are the nation's.

RICHARD F. BACH.

TWO NEW BUFFALO TERMINALS

KENNETH M. MURCHISON, *Architect*

THE railroad situation in Buffalo has been materially altered by the recent completion of two imposing terminals, one for the Lackawanna and the other for the Lehigh Valley Railroad. Each is in a way a Union Station, as various roads are now using the facilities of these terminals.

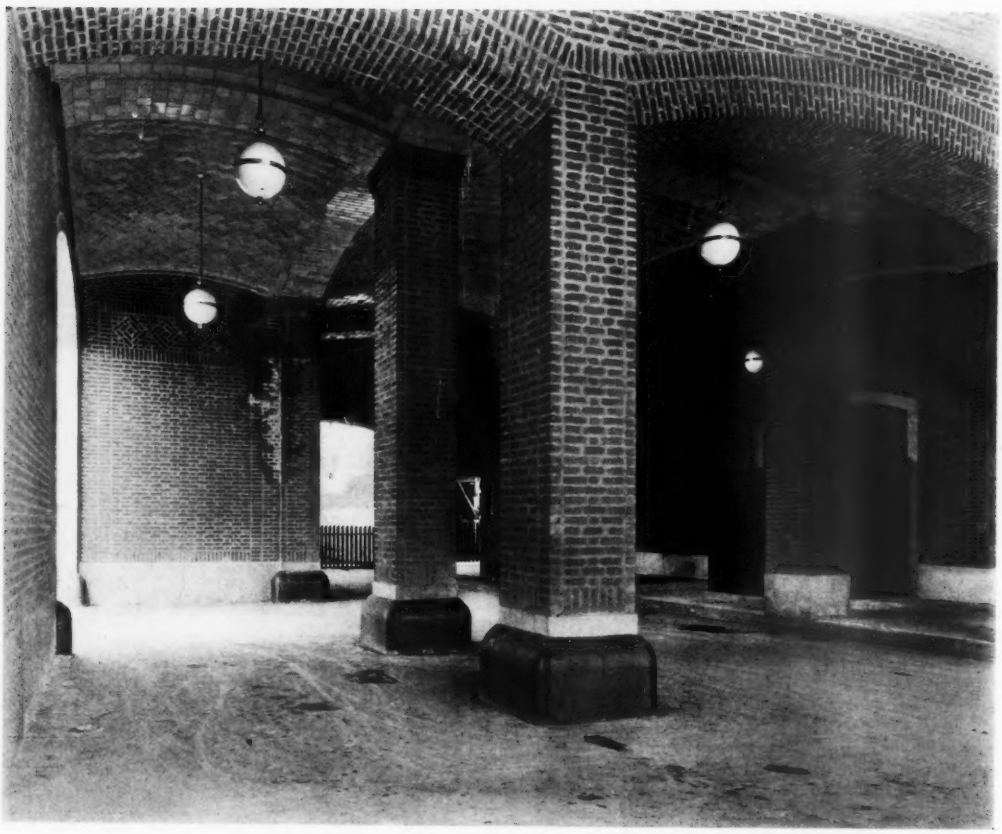
The Lehigh Valley station is in reality two buildings separated by Washington Street, communication between the terminal building proper and the baggage building being by means of a tunnel under Washington Street. The exterior on the main building is of Indiana limestone. The division offices are on the upper floors surrounding the main waiting room. The treatment of the waiting room is very simple in character and is designed to receive five large mural paintings which have not yet been put in place.

The Lackawanna terminal is a riverside structure and is designed to take care of the lake passenger traffic. The ground floor of the station contains all the facilities necessary for the convenience of the passengers using these steamers and the railroad facilities are for the most part contained in the second floor of the building on a level with the passenger tracks. There will be an elevated freight track on the north side of the building, which track has not yet been built.

The exterior of the terminal is of brick

CONCOURSE

LEHIGH VALLEY TERMINAL, BUFFALO, N. Y.



DRIVEWAY
LEHIGH VALLEY TERMINAL, BUFFALO, N. Y.

in terra cotta and the interior treatment of the lobby and waiting room is of artificial stone.

On account of weather conditions at Buffalo the concourse in each building is a brick structure completely inclosed.

Both terminals were designed and built at the same time under the direction of the architect.

The Castle of Coucy

The Germans have razed the historic castle of Coucy, with its great keep 200 feet high and the towers, each 100 feet high, which crowned the angles of its walls. Once before in its history its destruction had been ordered. Mazarin was bent on rendering useless a fortress that was almost impregnable against such weapons as the time possessed. The men he sent for its destruction soon wearied of their task, and spared the work of art. They were content to deprive Coucy of its dangerous strength. They tried to blow up the keep, and their explosives brought down all the interior rooms and staircases, but the shell of the tower, with its enormous walls, remained intact. It was left for the Boches, with twenty-eight tons of explosives, if what they say be true, to destroy a wonderful and interesting building that had ceased to have any practical military value. The present state of the castle resembles a mountain side after a great landslide. Huge blocks of masonry and stone are piled one on the other, and only a few fragments of the outer walls, many yards thick though they were, are all that is left of the superstructure.—*Building News.*

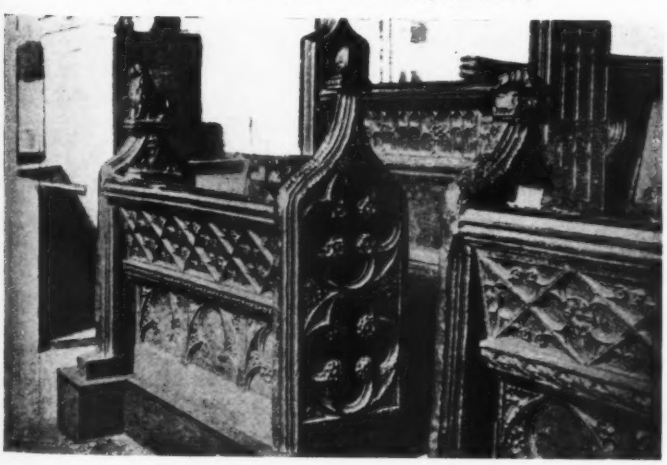
ORIGIN AND EARLY HISTORY OF PEW ENDS

THE BUILDING NEWS, in a recent review of Dr. Charles J. Cox's recently published book on "Bench Ends in English Churches," states:

"Probably the first permanent wooden seats in churches were those provided for the use of priests and clerks within the chancel during the choir offices. The custom of supplying permanent wooden seats for any part of the congregation came about very gradually, possibly originating with the fixing of seats in chantry parcloses or guild chapels, and thus spreading to the general body of the church. Fixed seats seem to have been called indifferently 'pews' or 'stalls' or 'seges.' The word 'pew' has long been associated with a seat in church, yet Milton uses the word to describe the sheep-pens of Smithfield, and Pepys applies it to a box at the theater. Etymologists have differed widely as to the origin of the word, but, taking the meaning to be an elevated or raised place, it is, as Dr. Cox remarks, easy to see how it came to be used; not only for an official or dignified seat in a church, but also for a set of seats or benches affixed to a frame to raise them, though slightly, above the dampness of the ordinary floor level.

"The bench-ends and seats were nearly always made from oak of first-rate quality, and, as oak was cheap and plentiful, are thick, strong, and heavy. Many are in as good condition to-day as when first carved, for old oak does not rot, if protected from damp, it simply crumbles away. The old oak used was cut in the winter when there was little sap, and the bark allowed to remain on. The design of the benches varied greatly, but the construction and general disposition of the seats were generally the same, consisting of a continuous sill laid along the floor, into which the bench ends were stubbed, the seats being supported on brackets placed at intervals, with the backs terminating level with the seats or carried down to the floor; the book-board, often an addition of later days, placed but little higher than the seat, and never slanting, being simply a ledge to lay the book upon when not in use. The ends or standards of the benches were often plain, with a molded cornice, especially in the earlier examples, but a vast number were elaborately panelled and carved. Favorite subjects in the later bench-ends, especially in Cornwall, were the instruments of the Passion, while in East Anglia the bench-ends often rise into a finial termed the 'poppy-head,' those in the Western counties being often horizontal. The name 'poppy' probably was an old French word derived from the Latin *puppis*, the figure-head of a vessel, surviving in our nautical term 'poop.' Hence the word *poupée*, a French child's doll, and the 'puppets' of our own language. Wilars de Honcourt, a thirteenth-century architect, has left behind him a curious manuscript, wherein he jotted down designs which took his fancy, including some bench-ends which he styles *poupées*. Hence the 'poppy heads' of the modern writers on English Gothic. The commonest form of poppy-head is that of the

(FROM THE BUILDING NEWS, LONDON)



AN EXAMPLE FROM HALSALL, LANCASHIRE
BENCH ENDS IN ENGLISH CHURCHES

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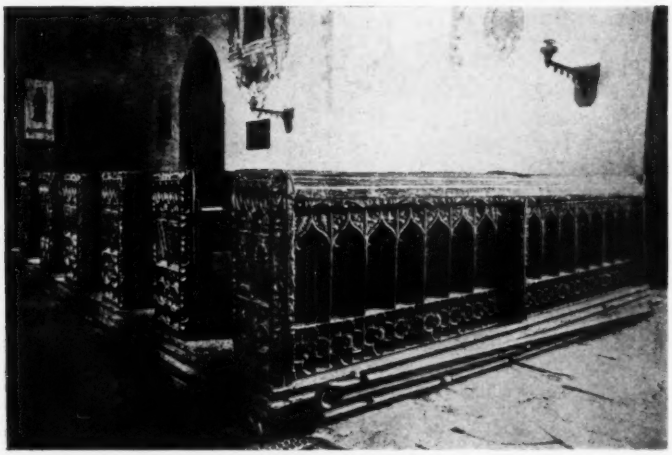
(*FROM THE BUILDING NEWS, LONDON*)



AN EXAMPLE FROM BRAUNTON, DEVON
BENCH ENDS IN ENGLISH CHURCHES

fleur-de-lis, possibly purposely selected as the conventionalized form of the lily as associated with the Virgin Mary."

The Chair of Architecture at Sydney University

Certain correspondents promptly challenged our announcement, made some months back, that the endowment of a Chair of Architecture at Sydney University amounted to £2,000 a year. Such liberality seemed to them to be too good to be true—surely, said one of them, we must have made a mistake. It could not be £2,000 a year, but the interest on that sum! True, they said, the best interest that could be got from an investment of £2,000 would not amount to a princely fee for the professor, but it was nevertheless the more conceivable hypothesis. But we made no mistake—£2,000 a year it is; and our Sydney contemporary *Building* states that it is to be allocated as follows: One professor, £1,100 per annum; one assistant, £250 per annum; apparatus, £650 per annum. It is a curious commentary on the estimation in which architecture is held in this country that the figure we gave seemed incredible. Many a professor of "the humanities" gets twice as much for services that are nowise more important. On the other hand, we doubt whether our few occupants of architectural chairs get half as much. They have, it is true, opportunities for practice; but it is hardly fair to them to take this fact into account. University chairs of all kinds depend mainly upon the generosity of some "pious founder," and hence there is wide discrepancy in the emoluments; but an important point about the Sydney chair is that it has been endowed by the Government. If our own Government, impoverished by the war, is for some time to come incapable of endowing university chairs, the least it can do is to ordain that existing endowments shall be more equitably distributed—that unnecessary chairs shall be abolished and new chairs established instead.—*Architects & Builders Journal.*

The Abnormal Use of Timber in England

Among the many lessons taught by the present war is the necessity for efforts at afforestation in Europe when the period of rehabilitation is reached. England alone estimates the value of the timber loss during the past three years, owing to abnormal demands, at between one hundred and fifty and two hundred million dollars, and sees in the future grave danger of a very serious shortage, unless some practical method of afforestation is pursued.

No work of conservation will be of greater importance than that having for its object the protection of timber, and any steps that will serve to promote its more economical use, and the eventual replacement, will undoubtedly be a movement in the right direction.

Problem Program, Columbia University School of Architecture

For illustrations, see plate section

AN EMERGENCY HOSPITAL IN CONNECTION WITH ST. LUKE'S HOSPITAL

(ST. LUKE'S GOVERNMENT HOSPITAL)

IN view of a possible war in America, St. Luke's Hospital has in contemplation a temporary hospital extension to accommodate 100 patients. This building shall be one-story high with a flat roof but with a possible extension of a part of it two stories high should occasion arise.*

The building is to be located on the open space to the west of the present hospital, on a plot about 76 ft. x 200 ft. and is to be served by the present hospital management with food, steam heat, general supplies, etc., which are to go out from the present hospital in a basement entrance supposed to be at or near the axis of the lot. The present ambulance entrance is to serve the proposed extension, and all four sides of the property are sufficiently open to light and air to permit the placing of the building and pavilions in any way desired.

The patients are to be all of one class or rank and will be minor cases only—the serious cases and major operations being taken care of in the present main hospital. The extension hospital shall contain accommodations for 95 to 98 patients in ward beds and 2 to 5 patients in private or quiet rooms. The requirements are grouped here for clearness as follows:

I. Ambulance entrance, office 100 sq. ft., receiving room 140 sq. ft. and wash room 50 sq. ft.

II. Emergency operating room 250 sq. ft., anesthetizing room, or rest room 70 sq. ft., sterilizing room 100 sq. ft., and doctors' locker and wash room 80 sq. ft.

III. Wards. The patients may be accommodated in three large wards and one or more minor wards, or by other arrangement. Each ward shall be 25 ft. wide and must not have more than 30 beds, which are to be spaced about 5 ft. on centers. The window area shall not be less than 10 per cent of the floor area. Each large ward shall have a surgical dressing room 70 sq. ft. and a duty room 50 sq. ft., containing lavatories and a toilet.

IV. Several small private or quiet rooms.

V. For the whole group of wards, private rooms and emergency operating room there shall be provided about 200 sq. ft. of work rooms for preparing bandages, storing linen, etc.; and 2 bathrooms.

VI. Diet kitchen for special diets 140 sq. ft.; a day and dining room for convalescent patients 140 sq. ft.

All sizes of rooms are approximate. No provision need be made for future elevators. The outside walls are to be shown 6 in. thick, and the inside walls 3 in. thick. The courts between pavilions shall not be less than 20 ft. Some rooms, such as store rooms, sterilizing rooms, etc., may have top light if in a position where a second story will not cover them. Exterior to be shown plain as if covered with stucco. Porches can partially occupy court space.

*Since the declaration of a state of war between the United States and Germany the requirement has been increased to 200 beds and the building has been designed accordingly.

Gargoyle Club, St. Paul, Minn.

If present plans are carried to consummation, the Gargoyle Club of St. Paul, comprised of architects and members of allied professions, will co-operate with the University of Minnesota in architectural design and research work. The affiliation may be accomplished next summer in order that active work may begin in the fall.

Mr. B. W. Day, president of the club, is quoted as saying that there is every reason to believe that the affiliation will be made. The Gargoyle Club hopes to work in conjunction with the St. Paul association in connection with housing and city planning problems.

Many of the members of the Architects' Club are members of various committees of the St. Paul association, so the two organizations will be closely allied in civic improvement plans.

In connection with the housing survey being conducted by the St. Paul association, the Gargoyle Club held an open meeting at its club house, Ramsey Street and Pleasant Avenue, on April 10.

Personal

Mr. Charles E. White, Jr., announces the removal of his offices from the City Hall Square Building to the Fisher Building, 343 Dearborn Street, Chicago, Ill.

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Recent Legal Decisions

What Was the Contract?

How many times architects will make a verbal agreement with the owner to make sketches and procure estimates for a proposed building during one interview and at subsequent interviews make further verbal arrangements for the architect to make working plans and specifications for the building sketched, obtain bids for constructing the same, superintend the construction, and after the final interview decide to have the whole matter put in writing, which they never do. The architect simply goes ahead with the work which, in accordance with what he understands the verbal contract was, and soon there arises a controversy as to what the verbal agreements were concerning what the architect was to do and what he was not to do. On February 23, 1917, the Supreme Court of Minnesota decided a case like this, in which the owner admitted during the trial of the case that he had employed the architect to make the sketches for the building, but denied that he had, in such interviews, employed him to make working plans and specifications for the building they sketched, to obtain bids for construction of the same or to superintend the construction. The architect claimed he was employed to do all of this and therefore sued by the owner for pay for all. In deciding against the architect, the court held that when it is understood between the parties that the entire agreement is to be put in writing and it never was put in writing, there is a strong presumption of no contract at all, as they make the writing part of it a condition precedent to its completion whereby the parties have consented to all terms of the contract, the mere reference to a future contract in writing will not negative existence of a present one. In view of the fact that the evidence shows the parties did not consent to all the terms of the original understanding, the suit of the architect must fail. (Lamoreaux v. Wiseman, 161 N. W. 504.) Decided Feb. 23, 1917.

Owner Makes Payments and Then Complains

Now and then we find an owner who allows the contractor to proceed with the building, makes the payments in accordance with the contract, does not complain to the architect, moves into the house and after occupying it for a while, complains to the architect about the house not being built according to the contract. Such an instance arose a few days ago in a case entitled Leonard v. Home Builders and decided by the Supreme Court of California which, among other statements, said: "Where a contract is made with the owner to erect the building on his land and there is a breach by the contractor, neither the occupation of the house by the owner after its supposed completion, nor the payment of the price, though accompanied by knowledge of the owner of the defective construction, is sufficient, taken alone, to operate as a waiver of a breach of the contract. The owner does not necessarily waive his right to damages by the mere fact of payment, with knowledge of the defects, or taking possession of the house and occupying the same. Still these facts should be taken into consideration, determining whether or not the owner did waive his right to complain. Furthermore, one who buys property upon its warranty as to its quality need not reject the property when offered in a defective condition, but may stand upon the contract, accept the defective property and then sue upon the contract and recover the damages by its breach. The final payment by Leonard was also accompanied by written notice that he was going to claim damages for the defective construction, which in itself shows that he had no intention to waive his right to claim damages for the defective construction. The contract, too, has very stringent provisions for prompt payment by Leonard. In view of all the circumstances Leonard should have the right to recover damages though he did not claim them until he had occupied the house for some time. (Leonard v. Home Builders, 161 Pac. 1150.)

DETAIL OF PORTICO

ALTERATIONS TO HOUSE OF EDWARD C. DELAFIELD, ESQ., RIVERDALE-ON-HUDSON, NEW YORK.

MR. DWIGHT JAMES BAUM, *ARCHITECT*